



PORTRAIT OF A YOUNG GIRL

By Rudolph Dührkoop

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A GERMAN PICTORIALIST—RUDOLPH DÜHRKOOP

BY SIDNEY ALLAN.

THE work of Rudolph Dührkoop is fairly well known in this country. He is one of the few German professionals who can claim this distinction. During his visit to America in 1904 as commissioner to the St. Louis Exposition, he made many friends, and ever since has been exceedingly generous in sending specimens of his average studio work across the ocean. During my recent trip in the West I came across several portfolios filled with examples from his Hamburg workshop.

Dührkoop occupies in Germany a similar position to Garo, Pierce, Goldensky and Strauss here, men who carry the artistic element in their prints, as far as their customers allow them to do it. The German pictorialists of whom Rudolph Dührkoop and Fritz Greiner of Munich are typical—are perhaps a trifle more ambitious than their American colleagues. They tackle more difficult problems, in particular more elaborate interior compositions, and in consequence often lack the naturalness and simplicity of our work.

I do not believe that an American professional would ever produce a composition like "The Lovers." It is even beyond

the grasp of the Secessionists. Its sentimentality is strictly Teutonic. I do not know the particular *raison d'être* of this picture, whether there are really people in aristocratic, purse-proud Hamburg who fancy such effusions and accept them as portraiture, or whether it is merely a study, a flight of Herr Dührkoop's muse into the pictorial-emotional domain of life. As a composition, it is excellent. The management of light, putting the strongest highlights in the man's forehead, leaving the rest of the face in shadow, and distributing a shimmer of subdued light on the lower part of the girl's face is worthy of an illustrator. Even A. E. Sterner who excels in such depictions could not do it any better. The placing of the folded hands is a difficult proposition. They are a trifle large and could be better in line feeling, but they help to carry out the sentiment and perfectly balance the higher planes in the upper part of the picture. The arm of the girl is rather carelessly draped, but hardly enough in praise can be said as to how the rest of the garments have been subdued and kept back. Also the natural treatment of the girl's hair deserves favorable comment.



YOUNG MAN IN THE PANAMA HAT

By Rudolph Dührkoop

The "Young Man in the Panama Hat," is a good study of subdued flesh-tints. Despite the whiteness of the tie and coat, the face has remained the principal point of attraction. I believe, this has been accomplished by the dark accent of the hair and by producing with the help of the hat (almost of the same tone value as the face) a large uniform plane of middle tints. The background, although subjected to manual manipulation is restful and effective. The ear and the jaw line seem to be a trifle out of drawing.

The "Head of a Girl," is an interesting study in oblique lines. Again the face is lower in key than the dress.-The darkness of the hair, accentuated by the light background helps the complexion of the face. It does not impress one as being too dark. Dührkoop seems to lay special stress upon a clearly defined light and shade distribution, a quality which is apt to lend strength to the modeling and which is generally neglected in this country. Few of our men would dare to apply such pronounced shadows as these



HEAD OF A GIRL

By Rudolph Dührkoop

under the nose, lower lip and chin. Even a Pierce seems to be afraid of such decided contrasts.

The "Lady in Riding Habit," reminds one of the work of Rose Clark and Elizabeth Flint Wade. The subtlety of the black and dark gray tones is exceedingly fine. The lower hand is too dark, and one is also left in doubt as to what she holds in her hands. In a good picture everything should explain itself. The modeling of the face is treated with charming breadth. The features have

undergone a flattening process and yet suggest roundness. The fragment of the frame in the right upper corner is well placed and helps the composition considerably. On the whole this is a most satisfactory print. It seems, however, to show American influence and it is not quite as original as most of Dührkoop's work.

The group of the three children is too full of detail to suit me. There is a decided lack of composition in this picture. It is overcrowded and too diversified in



CHILD STUDY

By Rudolph Dührkoop

interest. The poses of the children, each taken separately is natural enough, but the figures do not pull together. If the smallest girl had been left out entirely and the background treated in a more sketchy manner, the composition would be greatly improved. As it is, this picture falls short of Dührkoop's best efforts. Eickemeyer could easily beat him in this kind of work.

In the "Study" a lady in evening dress standing at a sort of studio window, we have a poster-like effect. It is produced principally by the straight lines of the window frame, the silhouette-like treat-

ment of the figure and the train of the dress disappearing in the lower right corner. Particularly note-worthy is the handling of the upper part of the figure. It is full of charming details, kept in such a low tone, however, that they are hardly noticed at the first glance. The Hamburg pictorialist seems to be specially fond of such low toned effects, and I would find it difficult to mention anybody who could compete with him in this specialty. If the picture were changed into an upright by trimming it about an inch and a quarter at the left hand side, (eliminating the suggestion of the side



STUDY

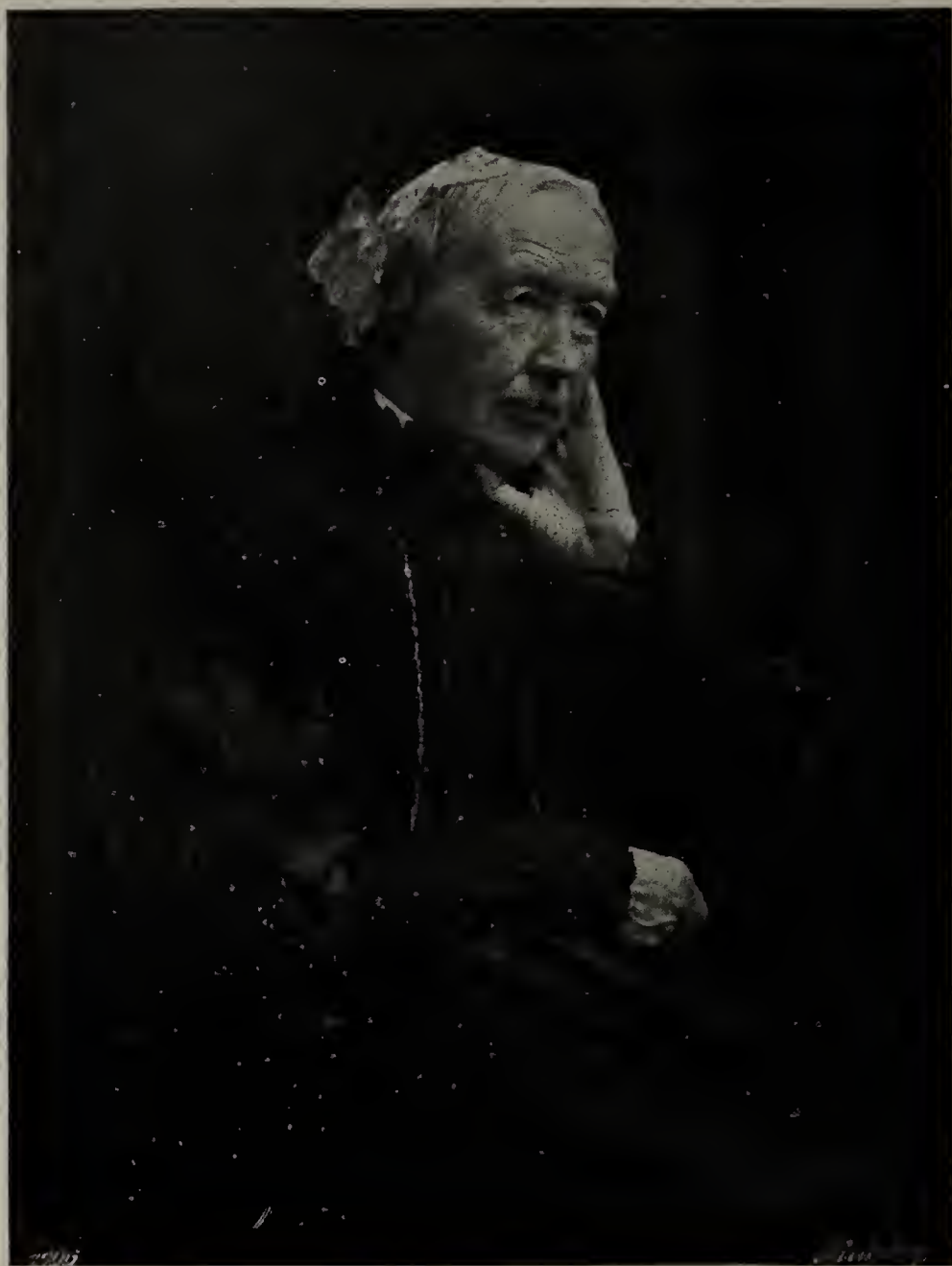
By Rudolph Dührkoop

wall), the pictorial quality of the composition would be greatly enhanced. The length of the figure seems to call for it.

We now come to the three most beautiful prints of this collection. The portraits of an Old Lady, of the Poet Frensen and of a young girl, are specimens of such excellent workmanship, that every studio could well afford to be proud of them. They are exceedingly simple and unaffected as all good portraiture should be. The photographer tried for nothing but the salient characteristics of each sit-

ter, and he succeeded in recording them. It would be difficult to say which of the three is the best one. They seem to be powerfully and rapidly improvised direct from nature.

How naturally the thoughtful old lady wrapped in meditation is seated. She truly conveys the idea that she was not posing. This is frank and sane portraiture, without a trace of arrogance and striving for queer and quaint effects. It is inspired only by the spectacle of life as visible to his own eyes. It seems almost cruel to



PORTRAIT OF AN OLD LADY

By Rudolph Dührkoop

pick out minor faults in such an excellent print, and yet this is the critic's duty. I wish the photographer would not have had considered it necessary to accentuate the highlights of the hand on which the old woman's face is resting. The face does not need this contrast, and the form of the hand is not beautiful enough to warrant accentuation. The highlights in the lace cap would have proved sufficient to throw the face into relief. Otherwise, the picture is perfect, unless somebody should find fault with the three perpendicular folds in the background.

The portrait of the poet is equally successful, perhaps even more so. However, hard I might try I would find it difficult to criticise anything in this print. There is nothing to criticise. The simple arrangement, the pose of the thoughtful face, the masterly treatment of the hands resting so naturally on the book, the elimination of all unnecessary details, the quality of the background are all above fault finding, and it is really a critic's greatest pleasure to find something where argument becomes unnecessary. A pity that it occurs so seldom.



PORTRAIT OF THE POET FROENSEN

By Rudolph Dührkoop

There is something, however, in this print that demands special consideration. You will notice that the strongest high-light, the tone nearest to white (as in the majority of Dührkoop's pictures) is not in the face but on the collar and cuff. It proves the fallacy of the general opinion (Poore's, Bement's Beck's and Dundas Todd's included) that the highest light effects must be concentrated in the face, in order to make it stand out. Garo's and Pirie MacDonald's theories are well enough—for them, but they are only one

solution of the problem of lighting a face. The Dührkoop method is a much subtler one and well worth analysis and experiments under the skylight. The expression of a face handled in a gradation of middle tints is much finer than one produced by big chalky splotches on forehead and nose.

In the "Portrait of a Young Girl," we have (see frontispiece) a peculiar top light effect which strikes neither forehead nor chin, but only a part of the eyebrow, the cheek bone, and one side



LADY IN RIDING HABIT

By Rudolph Dührkoop

of the nose, and of the upper and lower lip. Dührkoop apparently searches continually for new light effects. They give variety to his prints and in this instance give a special impression of vivacity to the typically German face of the young girl. In this picture as in the "Lady in Riding Habit," and "The Lovers," the strongest highlights are to be found in the face, but in each instance they are treated in an unconventional, novel sort of a manner. He

does not believe in any stereotyped method of picture construction. The prevailing tone of mushiness invented by gloom-imbued souls whose artistic feeling can find no other outlet than in the portrayal of dark vagaries and misty agonies, has also found its way to Germany. But no person of superior judgment like Dührkoop would apply this prepondering note of gloom to the depiction of a happy laughing child. Kasebier would. That is the difference.



THE LOVERS

By Rudolph Dührkoop

In summing up the manifold merits of Rudolph Dührkoop as a portraitist, it seems that special stress should be laid upon his unconventionality of expression. Also following at times to some extent the tonal compositions of American pictorialists, he invariably produces work which is strongly marked by personal sentiment. He recognizes the great truth that the charm of a face does not necessarily lie in the accurate rendering of its features, but in the expression of those

deeper and more subtle beauties by which nature appeals to the imagination. To him a portrait is not merely a record, not mere actuality, but the means by which he can give utterance to poetic sentiments and aspirations. He revels in the mysteries of light and shade—one of the greatest problems portraiture has to offer—and makes his prints sparkle with that delightful freshness which is one of the great charms of all good pictures.



COLLIN'S GROTTA

SOME SUBTERRESTRIAL PHOTOGRAPHY

BY C. H. CLAUDY.

THE making of photographs beneath the surface of the earth is not usually a popular occupation. Not that it is not of itself enjoyable, but because it is so hard to get below the top of *terra firma*! And when somehow, somewhere, we do get below the surface and take flash lights, what flat and uninteresting pictures we do produce, to be sure!

In presenting the accompanying pictures of underworld marvels, it is of course evident that the photographer had wonderful material with which to work—nowhere in the three miles of rooms and galleries in the Caverns of Luray could a camera be set up and anything taken which would not be both wonderful and

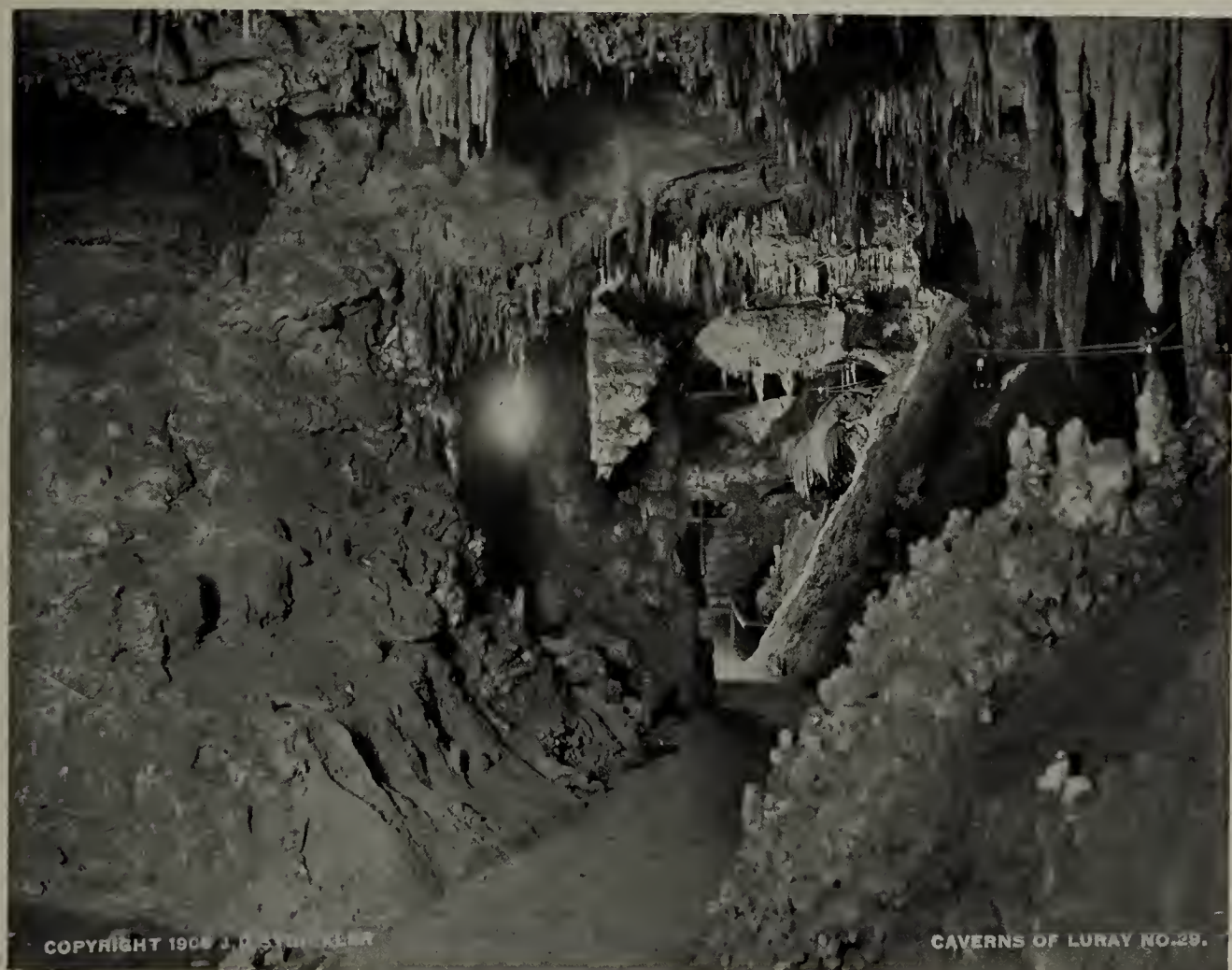
beautiful. On the other hand, this particular photographer has displayed a great deal of taste in the selection of his pictures, and shown an excellent appreciation of the force of light and shade, and particularly of contrast in the making of these plates. It is with the more pleasure that I am glad to name him, Mr. J. D. Strickler of Luray, Va., and to praise his excellent work and the keen "know how" he has displayed in getting his results, but later on I shall have a few iconoclastic words to say, which I trust he will take in good part, regarding some things he hasn't done!

Luray Caverns are—well, they are simply indescribable. I have tried several times, for various purposes, and various

publications to tell in words of the English language, something of their utter beauty, their marvels of color and form, their mysterious charm and the curious quaint likenesses to things familiar shown everywhere you look in stalactite and stalagmite. I don't need to be told that I have scored a failure every time. When you see something entirely beyond all ordinary experience,—when you hear or taste or feel or smell something utterly different from any previous sensation, you cannot tell about it, for lack of a standard of comparison. So here, for lack of anything to compare with, you will find yourself unable to adequately tell your friends what you have seen, after you go to Luray. The bald facts, of course, are easy enough to tell. You go to Luray—one mile from the town is the entrance to the cave—you pay a small

fee, a guide takes you down a long flight of stairs, touches a button and the next instant you are in wonderland. For an hour and a half you wander through passageways and lofty rooms—over cement walk-ways, lighted by electricity, in vault, in cathedral, in hall,—in ball room, in tiny nooks, in caverns within a cavern, in and through and around a forest of rock formations, as lost to direction as if in the middle of the sea at night without a compass, and as bewildered as if you were an incarnation of Alice in Wonderland.

The photographs do no justice to the sight. This, from no lack in the photographs, which, as before noted, are excellent, but because of several conditions. One is that flash-lights seem to be the only available illuminant, and flash-lights always lack in showing perspective. A



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CAVERNS OF LURAY NO. 29.

THE APPROACH TO NATURAL BRIDGE



SARACEN'S TENT

familiar example is the flash-light of a scene on a stage—the scenery seems flat, the actors pasted on the scenery—the whole has no depth. Here also, there is little depth, compared with the reality, and there would be none at all were it not for Mr. Strickler's manner of making these photos, of which more in a moment. The scenery of the cave lends itself badly to picturing, because it is in colors which photograph badly—reds and browns and yellows and creams,—comparatively little of blue or lighter shades. Again, focussing is an eye-trying operation—bright though the electric lights are, they are not bright enough to make an evenly illuminated scene on the ground glass, and candles and several

assistants need be at hand when a photograph is to be taken.

The single flash would do nothing but impress a mass of detail on the plate,—and detail with no relief. In some photographs which I have seen, where a double flash was not possible, the result is flat as flat can be. So in all cases where it is feasible, more than one flash is used. Take for instance, and at random, the picture of the Saracen's Tent. One flash was made to the extreme left and behind the camera, which flash produced the highlight on the column at the left and gave the shadow detail in the column at the right, and the second flash was made behind this right hand column, and it was a much brighter flash than the first

one—illuminating the tent beyond, and throwing into sharp relief the columns through the archway between which the main part of the picture shows. A very curious effect of perspective is shown here—the relief is apparent at the bottom of the picture, and the photograph has depth. But at the top of the picture, the top of the tent and the stalactites between the columns seem to run together and occupy one plane! This would be the effect throughout if but one flash was made!

A similar method was used in photographing the Fallen Column,—to one who has been in the caves, one of the most impressive of its sights. Some thousands of years ago,—anywhere from ten to fifty thousand, a heavy set of stalactites fell from the ceiling, struck on their points, and turned over. Since

that time, the ceaseless drip, drip of the water has brought down more mineral substance and completely sealed the joint of the end of this column and the place where it struck. This enormous mass of stone, lying prone, is one of the very impressive sights of the cave, and a photograph of course, was required. But for some time, the photo first taken was considered very unsatisfactory. It was lighted from the front only. Mr. Strickler lighted it first from the front with a small flash and then, going around the corner of a gallery, made a brilliant flash which lighted up the formation behind so that the column forms a decided contrast with the background. The result is a very fine picture of this formation, although to one who has yet to visit Luray it is not so striking as some of the other pictures.



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CAVERNS OF LURAY NO. 22.

THE FALLEN COLUMN

It seems strange, but the most striking picture of the thirty-four which form a complete set, is a picture of Skeleton Gorge, a very beautiful part of the cave, it is true, but by no means the most impressive. I, after going through the cave five times, and considering the picture possibilities, believe this is due to the fact that the best picture possible has not yet been made of several of the more impressive parts of the caverns. I do not want this to be taken as a stricture on the work which has been done—I repeat, for the sake of emphasis, that this is excellent, but I think it can be bettered, not necessarily by any better photographer, but by different means. There is an enormous chasm in the cave, called Pluto's Chasm,—deep and dark and mysterious—a rift within the earth, and full of photographic possibilities—possibilities not realized at all in the photographs which have been made of it. No picture in Giant's Hall does that stupendous aggregation of stone shapes justice,—and I think justice in some degree could be done.

To be entirely fair, it should be said that the owner of the cave does not wish pictures made, fearing the smoke caused by the flashlight will settle upon the formations and in some degree obscure their coloring, or perhaps, act chemically and mar their beauty. I believe the fear is groundless and have so expressed myself to him, but perhaps if it was my cave, I wouldn't take any chances either! So Mr. Strickler has not been able to experiment and try and try again as often as he, perhaps, might like. Anyway, the fact remains that the best photograph,—the most striking and the most beautiful, is not of either the most striking or the most beautiful section of the cave. This is a multiple flash picture, at least five flashes being shown in the photograph. One in the foreground, back of the cam-

era, one just behind the artificial bridge, one in the background, one to the extreme left, around the corner, and one up high to the extreme right, a very little flash to mark the entrance to the grotto of Imperial Spring. There may have been others, but these are evident. This would seem to show that in large portions of the cave—and there are plenty such,—the more the flashes and the consequent gain in quantities of contrast the more striking the photo. Skeleton Gorge is so named because it is the last resting place for some human bones, mortal remains of some early investigator of a hole in the ground, who roamed and died of starvation, or falling from gallery to floor in the darkness, died of his injuries.

Mr. Strickler uses explosive powder in a stand lamp, and a white cotton reflector behind. He measures the powder and proportions the flash each to each by the amount of powder that he uses,—keeping notes always of each exposure that on a second trip he may improve the results.

It is the opinion of an amateur at cave work—so amateurish that he has never come closer to doing the real thing than watching another at the work, that the flash machine is not the best illuminant for the work. I do not believe that the extra smoke from pure magnesium, if any, could possibly do any harm, and I do not believe that the single flash can give the soft results that a lengthy magnesium flash, moved in the making, would give. The illuminating principal of explosive powders is magnesium in most if not all cases. Weight for weight and bulk for bulk there is more actinic light in an ounce of magnesium properly burned than in an ounce of any flash powder—at least, so say the chemists,—I am no authority. That being the case, and a too plentiful illumination being

hardly to be feared, it seems fairly evident that the use of magnesium could hardly hurt such a photo and might improve it.

Mr. Strickler has used a long focus lens of twelve inches focal length on an eight by ten plate in most of these pictures. This is a decided mistake from all possible points of view—a wide angle,—at least a seven inch lens, being clearly indicated. Never mind the pictorialist and his cry for perspective—half the time he doesn't know what he is talking about and the other half he can have his own way—here the perspective is (like every where else,) governed by the position of the camera with relation to the scene, only here you can get just so far away and no farther. As the twelve inch lens has to be used wide open, it has little depth of focus, hence the fuzzy foregrounds. A seven inch Goerz lens, with its enormous image circle would cover

the same plate with no more fuzziness due to field curvature—at $f\ 6.8$ —than is here obtained through normal lack of definition through the wide difference between conjugate foci. In these particulars—kind of flash, kind of lens, and consequently amount of view, I think Mr. Strickler could improve his work. I believe that if a set of pictures of certain parts of the cave were taken, with absolutely no illumination in the immediate foreground, there would be shown an entirely different aspect of the cave, and this I hope to see tried. But otherwise, and particularly considering the work which has been done under the conditions in which it *was* done, the artist has handled a most difficult proposition in a very satisfactory and most pleasing way, and deserves the more credit that he had no precedent on which to build and had to work out his own methods for his own work.



SKELETON GORGE



SUNLIGHT AND MIST

(First Award June Competition.)

By William H. Zerbe



"DO YOU REMEMBER"?

(Honorable Mention June Competition)

By Grace A. Woodworth

THE MONTHLY COMPETITION

HOW to make pictures, something more than mere photographs, is the aim of the serious worker. The trouble is, most of their efforts are "near pictures," at the first glance pleasing, but upon further examination possessing fatal defects either in composition or contrasts, and failing to pass the test of one's being willing to live with them and find renewed pleasure with every examination. Submit your own efforts to this test, and note the small percentage that will pass muster. In attempting picture making by means of the camera, we are handicapped by its limitations, its inability to show color and lack of power to eliminate undesirable portions within the borders of your contemplated picture. Masters of technique and of mechanical manipulation with both print and negative can do much to remove this handicap, but alas so few of us can ever hope to be masters in this

branch. The only thing that remains for us then is to exercise extra precaution in selection, and to select understandingly. In every competition we find prints possessing undesirable features that could have easily been eliminated, some by moving the camera slightly, some by waiting for a more favorable arrangement, and some ruined by improper focus or lighting. The man who wins, is the man who thinks, who studies understandingly, and who profits by his failures. You can not produce art without a knowledge of art, except perhaps a lucky chance allows you to make a *picture* without knowing it. You can learn much from the study of pictures by recognized masters, the eye can be trained to selection and elimination, temperament can select the correct tonal quality—but nothing but good hard study can teach you composition, and nothing but practice can teach you the proper use of your tools.



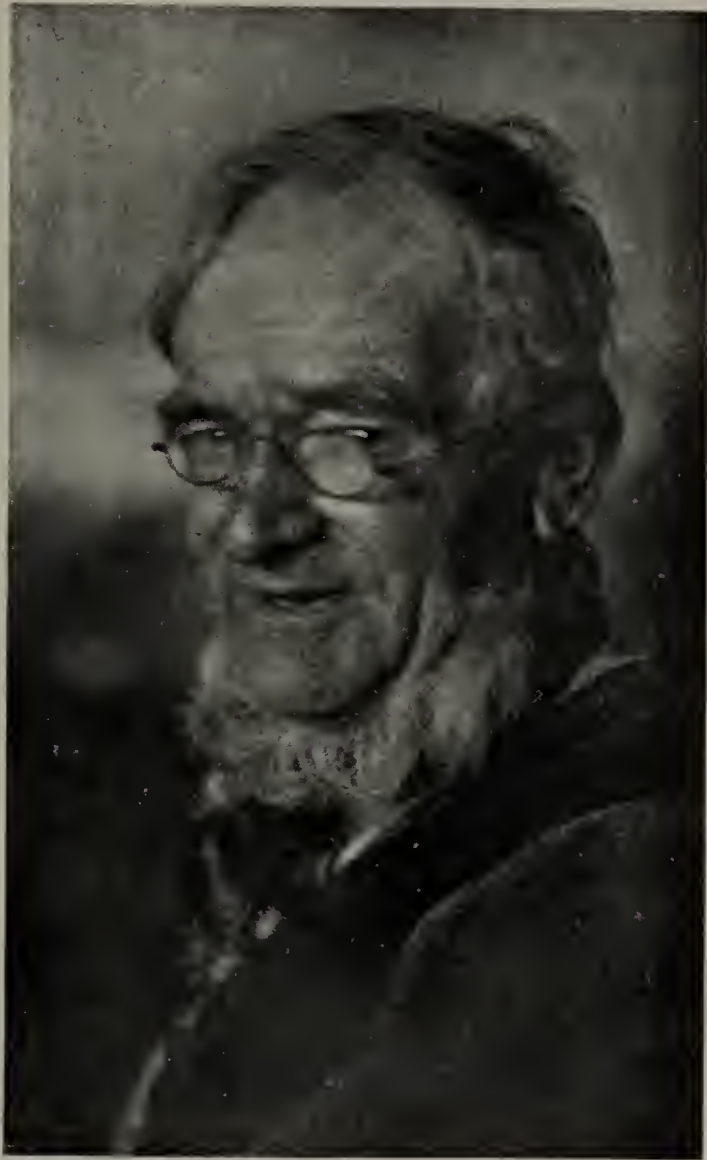
AN OUTDOOR CHEF

By Charles Turpin

(Honorable Mention June Competition.)

The winner of the first award in this competition is a good example of the foregoing. Mr. Zerbe's work has shown consistent and constant improvement to those who have kept in touch with him. Here is what his work evidences, a good knowledge of composition, a poetic temperament, and a keen eye for selection, and last, and by no means least, a thorough knowledge of exposure, development and printing. Mr. Zerbe has learned and learned well just how to make his negative yield what he saw on his ground glass screen, and how to make his print hold every subtle quality in his negative. His picture "Sunlight and Mist" is well worth studying. Let us point out a few of the mistakes he did

not make. In the first place, his road does not occupy the whole of the foreground—here is where a good long focus lens comes into proper play. He did not allow any branches or limbs of trees to project into the sky line unsupported. Finally, he did not wait till high noon to make the exposure, and so miss all the delicate long shadow tracery—this negative was made at 6 A. M., must be something in the old adage—"Early to bed and early to rise." There are many more things he could have done, and so spoiled a good plate—but he didn't. Study it a bit and see how you would have handled the same opportunity, then go out and try it yourself. The data of his picture are as follows: Taken in August



HEAD OF A PEASANT

By E. O. Hoppe

(Honorable Mention June Competition.)

at 6 A. M., one second exposure, rear combination of Goerz lens, 24 inch focus F. 14, developed in pyro acetone, printed on Autotype carbon.

The second award "An Out-Door Chef" is a good example of what may be done with a simple and commonplace subject. Note the placing of the subject just far enough in front of the steaming kettles to give a good idea of their size, and yet not dwarf the principal figure in the composition. Note also the repetition of circles in the tops of the pails and caldrons, and how the supporting fire iron helps frame the figure of the chef. A snap shot perhaps, but not made without knowledge. The data furnished with this entry runs as follows: Cloudy light,

taken 3 P. M. in latter part of March. 1/50 second F. 11.3, Lens R. R., on film developed with pyro and printed on Royal Velox.

First Honorable Mention "Head of a Peasant," by E. O. Hoppe is a good portrait finely lighted, correctly focussed and well spaced. Note how the head has been turned so as to bring out strongly the best features of the face, the nose and chin, and how the face is a good oval, instead of distinctly square as would have been the case had the subject been taken full front. Data, good light exposure six seconds, indoors, 11 A. M., in April, Stop F. 18.

The Second Honorable Mention goes to Grace A. Woodworth for her inter-

esting character study "Do you Remember"? It is a simple little story, but well told, and though perhaps somewhat faulty, will bring at least a smile or sigh of remembrance which is more than many pictures can do. As a suggestion, the high light in the book case in the background should have been toned down and the quilt also, either by local reduction on the negative, or by manipulation during printing—both simple processes. Data, Window light—Seed plate, Baush & Lomb Lens, full opening, three seconds exposure in late afternoon, printed on platinum.

The Third Honorable Mention "In the Sheep Pasture," by R. E. Weeks, is a good bit of open landscape, pleasing in quality and tone. This picture affords

us the opportunity to show the artists power over the camera as to selection and arrangement. To perfect the composition, a painter would have left out the two sheep at the extreme right, as they destroy the pyramid formed by the next cluster of sheep, place your finger over these and see how the picture improves. Data, negative made in September, 3 P. M., 1/25 second exposure, medium Iso plate, printed on platinum.

We trust our competitors will take our criticisms in good part, even if they do not always agree with them, and feel that their entry possesses merits over those receiving awards higher than theirs. And remember the old saying, just as apt to-day as when it was first written—"Try—try again."



IN THE SHEEP PASTURE

By R. E. Weeks

(Honorable Mention June Competition.)

PRINTING PHOTOGRAPHS UPON SILK AND SATEEN

BY A. J. JARMAN.

THERE are several processes for producing photographs upon silk, by printing out like the usual method of printing upon paper. Beautiful and lasting pictures can be made both upon silk and sateen, in most instances without altering the color of the silk. Two methods will be described which will enable any one to make excellent prints by either method. In each case the preparation of the silk or sateen must be carried out by those who wish to produce these prints. The operations are both simple and inexpensive, and the utensils required are few.

At the outset, it must be remarked that great care and scrupulous cleanliness are necessary. In all the operations the trays and bottles employed must be used for no other purpose, as the various solutions employed will contain free nitrate of silver. Care must be taken that no trace of a developing agent comes into contact with the fabric. Should such occur, a stain will be produced that cannot be removed, which in any case will spoil the resulting picture. There will be no need to fear success if care and cleanliness are attended to. In making up the various solutions, always use wide-mouthed amber colored bottles. These bottles are both convenient and safe. Make up the following solution for preparing the silk.

Iceland Moss..... 60 grains
 Chloride of Ammonium..... 100 grains
 Water (boiling) 20 ounces
 Stir this mixture well for about five minutes. As soon as the temperature has become reduced and while warm, filter the mixture through absorbent cotton pressed lightly into the neck of a glass

funnel. Cut the silk into pieces a little larger than required, say, one inch each way, place these pieces into the warm solution, allow them to soak for ten or fifteen minutes, then remove them one at a time, and suspend them to dry, by means of a clean wood clip. The excess of liquid may be permitted to drain from one corner into a funnel, and collected in the bottle containing the excess or liquid. When the pieces of silk are perfectly dry, they must be sensitized by placing them into a solution of nitrate of silver made as follows:

Nitrate of silver..... 200 grains
 Citric Acid (crystals) 20 grains
 Distilled water 10 ounces

As soon as the crystals are dissolved, the solution must be filtered through absorbent cotton, and placed in a clean glass or porcelain tray, under the light of a small gas jet or lamp. The pieces of silk must be allowed to remain in this sensitizing solution for fifteen minutes, then removed, and allowed to drain by being held with a clean wood clip, as in the previous case. It will be advisable to coat the wood clips with shellac varnish twice, and dried before use. This will prevent the absorption of the salting or sensitizing solution. The silk thus prepared must be suspended in a warm closet or room, away from all white light to dry. As soon as the prepared silk is dry (thoroughly dry) it is ready for printing, which is carried out in the following manner:

PRINTING UPON THE SILK.

Take a piece of thin cardboard slightly smaller than the negative to be printed from, place a piece of the sensitized silk upon it, fold the edges over the card-

board, and hold them in position by means of a fine strip of gummed paper. The silk thus fitted up is placed upon the negative adjusted in the printing frame, and exposed to light in just the same way as printing upon paper. The object of the cardboard is to enable the silk to be bent backward, so as to examine it during printing, and observe the depth of the print. The printing must be carried a little deeper than required when finished. When the print or prints are made, they must be washed well in six or eight changes of clean cold water, allowing a few minutes to elapse between each change, and then toned in the following gold toning bath, which is suited for toning after the mixture has been made and allowed to stand for twenty-four hours.

GOLD TONING BATH.

Water 30 ounces
 Carbonate of lime (chalk)... 20 grains
 Acetate of soda..... 120 grains
 Chloride of gold..... 4 grains
 Shake the mixture well and at the end of twenty-four hours, decant the clean liquid into another bottle ready for use. Pour about twenty ounces of this solution into a clean tray, place the washed silk prints into this, change the prints over and over, watch the change in color, and do not carry the toning too far. Remove the prints as soon as a slight alteration in color has taken place, dip them into another tray of clean water, change the water several times, then fix the image in the following solution, made up fresh at the time of toning.

FIXING BATH.

Hyposulphite of soda..... 3 ounces
 Water 20 ounces
 place the silk prints into this, and let them remain for twenty-minutes, turning them over occasionally during this time, and fixing will be complete and thorough after this operation. The prints must now be washed well in running

water for half an hour. They may then be hung up to dry, and ironed flat with a sad iron, not too hot. The print is now complete.

The second method of producing these beautiful prints differs very much from the one described. It is both simple and reliable. The silk or sateen is cut into the sizes required, or they may be cut into larger sizes and sensitized, then cut to suit after sensitizing. The following solution must be made up in an amber colored glass bottle, and the sensitizing carried out under a pale yellow light.

THE SENSITIZER.

(1)

Ammonia citrate of iron (green crystals) $\frac{1}{2}$ oz.
 Distilled water 4 oz.

(2)

Citric Acid (crystals)..... $\frac{1}{2}$ oz.
 Hot distilled water 2 oz.

(3)

Nitrate of silver..... $\frac{1}{2}$ oz.
 Hot distilled water 2 oz.
 add No. 2 to No. 1 shake the mixture well, then add No. 3. Shake the preparation well again, allow it to become cold, and filter through absorbent cotton in a clean glass funnel, and do not allow any metal to come into contact with this liquid at any time because it would cause the metallic silver to be precipitated.

SENSITIZING THE FABRIC.

Place the silk or sateen upon a sheet of clean glass, pour a small quantity of the sensitizer into a saucer, apply this to the surface of the fabric with a two inch flat camel's hair brush, one with an India rubber back. Apply the sensitizer by brushing the silk first lengthwise, then across. Do not use too much liquid. Now suspend the silk in a warm closet to dry in the dark. When dry, it is ready for use. This material will keep well for about one week, if left in a very dry place.

PRINTING THE IMAGE.

Follow the plan as previously given, and do not carry the printing beyond about two shades darker than required in the finished print. As soon as the print or prints are complete, they must be washed well in cold water for about ten minutes and must then be toned in the following gold toning solution, with which any range of color can be obtained.

TONING BATH.

Water	25 ounces
Chloride of gold	2 grains
Saturated solution of Borax	2 ounces

This bath can be made up and used at once. As soon as the prints have been washed, place them into this gold solution in a clean tray, change the prints about. Watch the color. As soon as the slightest change in color has taken place, remove them, wash them in two or three changes of cold water, then fix them in the following fixing bath.

Hyposulphite of soda.....	2 ounces
Water :.....	16 ounces

allow the prints to soak in this for a quarter of an hour. Then wash them well for fifteen to twenty minutes in running water; they can then be blotted off between several blotters and while still damp, place them upon a piece of clean muslin or calico that has been previously well washed, and apply a moderately hot flat iron upon the *back* of the fabric. Iron them carefully, and evenly. The color of the finished image will depend upon the temperature of the iron. The hotter it is, the darker will the print become, while with less heat, the color will be much lighter. Prints made upon sateen, or other cotton fabric, can be obtained in any range of color without

toning. The writer possesses prints so made over a year ago which show no signs of fading.

When the print has been made, and well washed, place it directly into the fixing bath, let it remain in this for fifteen minutes, then wash the print well. It can be twisted up to expel the water, then blotted off and placed upon a sheet of clean cardboard or hard glazed paper, and ironed from the back. The ironing must be done very evenly, or the print will become streaked, and will show two colors. Should this occur, or should the print present the appearance of being too blue, all that is necessary will be to dip the print into water, blot it off again, and iron it with more care, using the iron not so hot. Any range of color can be obtained by this means, from a beautiful sepia to a rich blue black, the result depending entirely upon the temperature of the flat iron.

The sensitizing solution will keep well for months after it has been mixed, providing it is kept away from all actinic light, and well corked. Simply reading the description here given does not convey the beautiful results that can be produced. The process is simple and certain. It will be impossible for failure to result, if the directions are carried out to the letter. Any person who may put either of the processes described to the test will be amply repaid by the excellent results that can be produced. The pictures produced need not be portraits alone, views, landscapes and marine views, all are capital subjects for fabric printing, and many new and charming additions can be made in the home from holiday made negatives, at a cost that will embarrass no one.



Editorial Notes

The trouble with many photographers is that they are apt to take too many chances, are too careless in compounding formulæ, and in using them when prepared. Practically every chemical action proceeds with mathematical precision, and any deviation from the absolutely correct proportions of the chemicals used to obtain results, must alter the character of the result. All sensitized products are exceedingly delicate, and even when the greatest care and accuracy are employed in using them, the way is difficult enough from causes often beyond our control. Practically the only point where we can take chances in the making of a photograph is in the making of the exposure, and here only within certain limits. We are fortunate in this respect in being able to secure plates and films remarkable in latitude, permitting quite a wide deviation from the normal exposure, and yet secure good results. But when it comes to development, we have not this latitude so far as the developer itself is concerned, and to secure good results the developer must be compounded with the same care and accuracy as employed by the maker of the emulsion on the plate or film. It is true that you make up a developing solution in the same manner as a housewife makes a cake—a pinch of this and a handful of that, and produce a negative image on your exposed plates, but such negative so made cannot have the correct gradations and freedom from fog or stain that a correctly prepared developer would have assured. If you make up your own formulæ, make them up carefully with cleanli-

ness and accuracy, and when possible always employ the formulæ recommended by the maker of the sensitized goods you are using. The reason for using the formula recommended by the maker, is this: In the first place he is the only one who knows absolutely the make-up of the emulsion, and consequently can be the only one to determine with accuracy the proper constituents of the formula necessary to secure good results. By means of the most delicate laboratory tests he has been enabled to determine just the proper amount of reducing agent necessary to reduce so many surface inches of exposed bromide of silver to a metallic state, just the proper amount of preservative (sulphite of soda) necessary to prevent undue oxidation and the consequent staining of the film, just the proper amount of accelerator (carbonate of soda, or other alkali) necessary to properly open up the little sacs of gelatine containing the tiny particles of silver, without producing fog or undue density or contrast. It is not from philanthropic motives that the manufacturer goes to all this trouble and expense, but from necessity—to enable you to secure the highest average of good results with his product. If the manufacturer has found it necessary to exercise such care and caution, does it not stand to reason that you should, in justice to both him and yourself, be equally careful and accurate, and also to profit from his experience by using the formula he recommends.

There is also another point to be considered. Most manufacturers prepare

the necessary developers, toning baths, etc., for their products. Upon investigation we find that we can purchase the various chemicals necessary and prepare our own solution at considerably less cost. Now aside from the legitimate profit, let us see just why such ready prepared solutions should cost more. One lot of sulphite of soda, or carbonate, looks much like another, this is practically true of all chemicals, but are these different lots alike in appearance, *alike* in *chemical* action and *quality*? Unfortun-

ately, they are not, and various lots must be tested and retested to determine their fitness for the purpose. This is why such preparations cost more—and they are worth it.

This does not mean that you must always use ready prepared solutions, it merely afford a good reason for doing so, and is simply to caution you when you do your own compounding to select good pure chemicals and to put them together carefully and intelligently.



BOYS DON'T LIKE TO BE KISSED

By Mrs. W. W. Pearce

COLOR PHOTOGRAPHY IN THE GRAPHIC ARTS

BY GEORGE SHERMAN.

THE ultimate success of color photography by some direct process will be the scientific triumph of the current year. This is a logical prediction in view of recent definite results accomplished by well-known experimenters. The discovery will be most important to the future development of photo-engraving and tri-chromatic printing, and it will lend fresh interest and new life to commercial photography. It is safe to say that the illustrated catalogue of five years hence will show every article of commerce in its natural colors—all reproduced from single-exposure photographs of the original subjects. The chief cost of producing three-color plates will be eliminated and a new era will have dawned upon the printing art.

Recent successes in color photography are the culmination of a series of experiments extending over a period of nearly forty years. Tradition has played a prominent part in the development of this important branch of science, in that the most successful experimentors of today adhere to the scientific principles as set forth by Seebeck and Becquerel when photography was still in its infancy.

These principles are based upon the theory that a light-sensitive substance can only be altered by those colored rays which this substance absorbs and the subsequent discovery of the peculiar property of silver sub-chloride to reflect light similar in composition to that which caused its formation. Sir David Brewster was the first to announce that the fundamental color pigments consist of red, yellow and blue and that all color sensations can be reproduced by a combination of these colors.

Later on, after considerable experimenting, Wiener made the deduction that if a light-sensitive substance is discolored through the influence of light, it will continue to alter until it is of a red, yellow, or blue color when exposed to red, yellow or blue rays. Wiener strengthened his contention by citing the following: "We observe this phenomenon by experimenting with silver sub-chloride—the so-called photo-chloride—and we can therefore explain the presence of color in pictures made on papers coated with this substance. Papers which are coated with fugitive red, yellow and blue dyes of the coal tar group, after exposure under a colored transparency, give correspondingly colored prints."

The ultimate solution of the problem of color photography by a direct process will be found in the successful application of these principles.

Very satisfactory colored photographs have been produced by various indirect methods within the past few years. In most of these the negatives were made by the tedious tri-color process, using three sensitized plates and three ray filters. The separation of colors by this means is perfect in its operation and has been in practical use for some time by the leading process engravers, but its application in color photography, in the strictly commercial sense, is too costly to be of real practical value.

Mr. William C. South has conducted some very satisfactory experiments in color photography, during the past year, in his laboratory at Berwyn, Pennsylvania. All of the photographs show correct tonal values and the colors are exact reproductions of the originals. The printing

is done on Whatman's paper, which is coated with an emulsion, made with equal parts of water and glue, saturated with an alkali bichromate, such as potassium or ammonium bichromate, to which is added the dye or pigment for producing the red print. The red is printed upon this coated paper by means of the proper negative. This negative, as well as the negatives for the blue and yellow prints, may be made through the proper filters on ortho—or iso-chromatic plates. All traces of the emulsion not acted upon by the light are washed away with hot water, and the print is thoroughly dried. The red print is then coated with any suitable blue-print solution, also containing an addition of glue. This is preferably a ferric solution, combining two ounces of ammonium ferric citrate in eight ounces of water with a solution consisting of one and one-fourth ounces of potassium ferricyanid in eight ounces of water, to which is added a few drops of glue. The blue is then printed quite deeply and washed under the tap. This print is now coated the third time in the same manner, using an emulsion of water and glue, saturated with potassium, to which is added the pigment for producing the yellow print. The yellow print is then made from the proper negative and washed out as before. The picture is then dried thoroughly and made permanent with one of the regular commercial fixing solutions.

This process is based upon the principle of printing three colors to overlap each other in perfect register. Not less important are the several processes of printing the colors through variously sensitized plates on transparent films, and collating these to form one photograph in all the colors of the original subject. Adolph A. Gurtner, of Bern, Switzerland, proved the practicability of such a process in 1903. He succeeded in produc-

ing a number of colored photographs by placing an orange-colored film on an ortho-chromatic film and simultaneously exposing both of said films, developing and fixing the negatives from the latter film with an iron salt and floating on this print a print colored from yellow to orange on a celloidin film. To be more explicit, an ordinary silver chloride-bromide plate is soaked in an aqueous solution of anilin orange until it is colored deep orange. This plate is dried and placed film to film on an ortho-chromatic plate whose sensitiveness for yellow and red predominates. Both plates are placed in the plate-holder so that the anilin-colored plate has its glass side turned to the lens. The films must be in contact over their entire surfaces in order to obtain sharp negatives. The colored plate acts as a light-filter to the ortho-chromatic plate behind it, so that the latter will be influenced by the red and yellow rays that pass through the filter, and the other plate will be especially influenced by the blue rays. Upon developing the two plates there will be two negatives—one serving to produce an orange-colored print and the other a blue-colored print. These prints, when superposed, produce a picture in colors. The selection of plates must be such that when the ortho-chromatic plate is fully exposed the colored plate is not overexposed. The plates are developed in rodinal. A comparatively dilute solution (one to five of sodium thiosulfate) is used as a fixing bath. If it is desired to produce the picture on paper the negative made on the iso-chromatic plate is printed on silver-chlorid-gelatin paper, which is treated in the same manner as the blue plate, except that it is hardened in a twenty per cent. alum bath before drying. The print is then mounted and moistened with a sponge, the yellowish red print on celloidin paper registered on it and the super-

fluous water absorbed with blotting paper. It is claimed that prints thus made appear in fairly correct colors.

The photographic and photo-engraving world are waiting with interest the novel experiments now being conducted by Robert W. Wood, of Madison, Wisconsin. Mr. Wood is the originator of a defraction grating used in combination with a lens on which parallel rays of light are directed. The spectrum produced by this method is displaced with reference to the direct image of the light-source produced by the lens alone, and when viewed by an eye placed in this spectrum the grating will appear illuminated with light of a color depending on the part of the spectrum in which the eye is placed. If the spacing between the lines in any part of the grating is different, that portion will have a different color, since the spectrum formed by this portion is displaced relatively to the other and consequently light of a different color comes to the eye from the area of the grating. If a defraction grating be made up of patches in which the spacing between the lines is different, these patches will appear in colors depending on the distance between the lines. It is claimed that a colored picture can be produced by a proper distribution of these patches.

The Miley Color Photograph Company, of New York, is applying negatives made by the tri-color process in an entirely new way. Three sensitized plates and three screens, red, green and violet, similar to those usually sold by the supply houses, are adopted for the purpose, in the already well-known manner. With the red screen an ortho-chromatic plate, flowed with a cyanin solution, is used. An ortho-chromatic plate is also used with the green screen, and a plain gelatino-silver-bromid plate with the violet screen. The plates are exposed and developed in the usual way, resulting in

three negatives, one through each screen, varying in density in the different areas, according to the color values of the three primaries in the corresponding areas of the photographed subject. The printing is done from these negatives by the use of bichromated gelatin-pigment paper. When tested the pigments used must give a color value closely approximating the spectrum of the colors they represent. By employing an inert pigment the solubility of the gelatin remains unaffected and the color pigment in the picture will conform with the area of its primary color in the photographed object. The red, yellow and blue pigments are finally ground, embedded and thoroughly mixed with soluble gelatin, coated on paper and dried. The paper is sensitized in a bath consisting of a five per cent. solution of potassium and dried in a dark room. The action of light in the sensitized coating is to render insoluble in hot water so much of the coating as is affected by the rays. The paper thus prepared is ready for printing. The red screen negative prints the red paper, the green screen the blue pigment paper, and the yellow print is made from the violet screen. The resulting three gelatin-pigment papers vary in solubility in the different areas, corresponding to the color values in the same areas of the three negatives. These pigments are developed by a special process and the three colors are transferred to register in their proper order—red, yellow, blue—thus forming a colored picture.

SINGLE EXPOSURE COLOR PHOTOGRAPHY.

The goal has actually been attained. Six perfect single-exposure color photographs were produced within the past few months in the laboratory of Charles Gilbert, Chicago, a noted experimenter. Application for patents on this process are now being made and it is the intention of the inventor to place the results

of his discovery in actual commercial use during the current year. The crux of Mr. Gilbert's really remarkable discovery partly hinges upon the attainments which have already been achieved by other noted workers in color photography. Even so, this new process is none the less important and Mr. Gilbert's discovery is as full of fresh interest as if based upon entirely new and original principles. Like Marconi, Mr. Gilbert has combined the results of his own researches with the achievements of other eminent inventors, all toward the final accomplishment of a practical commercial method of producing colored photographs at one exposure. As Marconi's successes with wireless telegraphy depended greatly upon the coherer, an invention brought out by Prof. Hertz many years before, so, in like manner, has Mr. Gilbert applied the principles as set forth by Mr. Lippman, the eminent Parisian experimenter, who has done more than any other man toward making direct color photography an actual accomplishment. Mr. Lippman's discovery is based upon profound scientific principles. It was he that discovered the fact that the difference in wave lengths of vari-colored light rays is appreciable and of consequence in producing the results so long desirable in color photography. After much research and tireless experimenting Mr. Lippman found that the wave length of red rays is 1-40,000 inch, the violet rays 1-60,000 inch, and the lengths of rays intervening of comparatively varying duration. Other spectral differentialities were also discovered in the infra-red and also in the ultra-violet. These can only be detected by the use of a temperature indicator and by chemical analysis. Mr. Lippman resolved to utilize his discovery in an endeavor to record colored phenomena through interference and without using either stained films,

ruled colored lines or pigments of any kind. This process has not proven successful in a strictly commercial sense.

These principles of light rays are a vital factor in the success of the Gilbert process. But Mr. Gilbert has discovered the necessity of other agencies in addition to interference to produce a perfect translating medium. This medium is a new anilin color pigment—a pigment so sensitive that every trace of color can be made to disappear or fade away when subjected to a ray of light passed through a closely contracted diaphragm for one-hundredth part of a second. A specially prepared print paper is coated with three primary color pigments, arranged side by side, as microscopic lines, in the order of their position in the spectrum. The entire surface of the paper thus prepared has a very light gray appearance if fixed before exposure, when the Gilbert fugitive pigments are used. No plates are used, but in their stead the actual print paper is employed. The decomposition of the white light passed through the lens is accomplished with a triangular prism which is made up of a number of small parallel prisms. The entire arrangement of the prism has the appearance of a fluting. Upon entering, the rays of light are decomposed by the smaller prisms and these effect the pigment paper in variable degrees. Thus, by interference, selective areas of the pigment paper are subjected to light rays of variable lengths and the differently colored microscopic lines are simultaneously bleached to a greater or lesser degree according to the character and density of the various color areas. The duration of exposure is but one thousandth part of a second. The paper is developed in rodinal and the picture is immediately positive in tonal value but negative in position as though viewed in a looking glass.

MONTHLY FOREIGN DIGEST.

TRANSLATED BY HENRY F. RAESS.

Reducing Contrasts.

Obernetter's method for reducing contrasts and removing halation is not so well known as it deserves. Better results are often obtained with it than by means of ammonium persulphate. After drying, the negative is placed in the following solution.

3	1-3 ozs.	Water.....	100 c.c.
1	dram	.Hydrochloric acid.	4 c.c.
45	grains	Potassium dichromate	3.0

The plate is allowed to remain in this solution until the back is white, then washed for a short time. It is then developed with a rather weak and slow acting developer. The plate must be carefully watched. When the plate has reached the desired density it is placed in a fixing bath, and fixed as usual. A little practice is necessary so as to know how far to develop, otherwise the development may be stopped too soon, which would yield a very flat negative; but then this can be intensified, if necessary.

All operations can be carried out in daylight, no dark room is necessary. After fixing wash as usual.—*Photographische Industrie*, No. 5, Jan., '07.

Argentotype Paper.

N. Adrianou has made some improvements in a paper first suggested by Herschel in 1843. Two solutions are used.

English.	No. 1.	Metric.
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7 ozs.	Pure water.....	200 c.c.
45 grains	Oxalic acid.....	3.0
1 oz.	Ferric oxalate.....	30.0

No. 2.

3	1-3 ozs.	Pure water....	100 c.c.
75	grains	..Silver nitrate...	5.0

For use mix equal volumes. This mix-

ture will keep for some time. The sensitizing is done by floating paper on this solution for two minutes, and then hanging the paper in a dark place to dry. As the paper during the coating is not very sensitive this work can be done by candle light. After printing the prints are placed for some time between sheets of damp blotting paper, this will act as a kind of developer and the prints become stronger; they are then placed in a one per cent. fixing bath. If the tone is not suitable the prints can then be placed in a combined toning and fixing bath. This simple process ought to find favor with those who are always looking for something new to obtain odd effects, either in portraiture or in landscapes, as many kinds of paper could be used.

—*Photographische Korrespondenz*, No. 557, 1907.

Carrying Liquids on Auto Trips.

As many automobilists are often also photographers it may be of interest to them to know that on long journeys they can safely carry liquids with them such as developer, etc., without fear of breakage, by cutting up old or defective tires in convenient lengths and placing the bottles in them. It is necessary that the bottles fit exactly.—*Photographische Industrie*, No. 9, Feb., '07.

Keeping Printing Out Papers.

Silver papers are best kept in a place which is dry but not too warm. If the paper is in rolls it should be tightly rolled, if in packages they should be placed under some pressure. A good make will keep for six months, without the front or rear becoming yellow. After this time

the printing takes longer and the image is flat, the toning also is slower. As paper does not keep as long as plates the age of the paper should be looked to at the time of purchase.—*Photographische Mitteilungen*, Vol 43, No. 18, 1905.

New Use for Old Fixing Baths.

To a saturated solution of hypo (1-8) is added, say silver chloride until the solution has a sweet taste. This solution can then be used for either silver plating metallic objects, or for blackening brass, such as diaphragms. The objects to be treated must be carefully cleaned to remove all fat. They are then placed in the solution by means of a wire, removed and dried either with a gas or alcohol flame, and this to be repeated until a sufficient coat has formed. Finally the treated articles can be varnished.—*Photographische Industrie*, No. 4, Jan., '07.

The Increase in Sensitiveness.

In 1839 Daguerre found it necessary to expose thirty minutes in sunlight. Dr.

Draper of New York in 1840 reduced the time to six minutes, which enabled him to make a portrait of his sister, after her face had been whitened and he had placed her in the sun. No doubt it required a strong sisterly love for her to sit so long under such trying conditions. Improvements soon reduced the time to thirty seconds. Dr. J. K. Dixon at the recent Kodak exhibition showed the picture of Dr. Draper's sister, and a picture of a humming bird, the exposure of the later was only the 1/720,000 of the former. And now we hear even 1/1,000,000 sec.—*Photographische Industrie*, No. 4, Jan., '07.

Incandescent Gas Mantles.

Photographers and especially dealers are cautioned not to place incandescent gas mantles near sensitized goods as mantles may contain radio-active thorium. F. M. Walter found that in fourteen days an impression was made on a plate, the gas mantle was in its usual pasteboard box.—*Photographische Industrie*, No. 4, Jan., '07.



CAUGHT NAPPING

By F. S. Andrus

SOMETHING ABOUT "ART PRINCIPLES IN PORTRAIT PHOTOGRAPHY."

BY OTTO WALTER BECK.

IF the science of pictorial composition had been accessible to photographers early, the question would not have arisen as to whether art can be embodied in photography.

The man possessing a knowledge of that science naturally invents, he is dissatisfied with meagre results and strives for a completeness of expression.

Art of itself is invention, it is not a copying process and what is expected of an art work in photography is something more than what the camera, plus the screen-back ground can give us.

It is astonishing that the hint embodied in retouching has not long ago been taken, enlarged upon and matured into processes that would make photography a tool for the widest expression of thought and for reflecting our feeling. As it exists to-day, photography, though it gives us startling results in the likeness, is naked of all that makes for harmony, beauty and meaning in pictorial creations.

To understand this assertion we must begin by trying to see how photography fails through its imitation of the concrete in nature, whereas all pictorial art grows out of the abstract. In the book on *Art Principles** the first two chapters are devoted to a careful analysis of "Art

and Photography," and "Art versus Nature."

Indeed every line of the fifteen chapters points to the error photography has thus far been laden with. Lifting this heavy weight, we are made to see the innumerable factors that in art make up the pictorial structure in the abstract.

It is feared that the day of convenient recipes has passed. No longer can we ease our conscience by asking of a fellow-worker how he makes this or that style of photograph. Hereafter, each picture will be a creation by itself, and unique. Such ideas as are shadowed forth by the following list of chapters are new in photographic literature. "Theory of spots"; "Beauty through spot arrangement"; "Lines"; "Power and Force of Lines"; "Movement of lines"; "Character and Nature of Lines"; "Stability"; "Backgrounds"; "Character in Portraiture"; "The Foil"; "Tone, Color"; "Light and Shade"; "Lighting."

In this list it will be noticed that lighting has been treated last.

Lighting would be a dead factor without the considerations that preceded it. But photography of the past has always made lighting serve all the purposes of the attempted picture—and therein it has

At the request of the editor, Mr. Otto Walter Beck has contributed this article with four illustrations by which he explains the nature and scope of his book on "Art Principles in Portrait Photography, Composition, Treatment of Backgrounds and the Necessary Processes".* The Baker & Taylor Pub. Co. 33-37 E 17th St. New York. This book is the first art primer compiled for photographers and its serious and new teachings are reenforced by such photo-processes as make invention easy and practicable.

Photography has been in need of this foundation to insure its art development.

Without these systematized art principles the great body of photographers could not unite in accepting a standard of work nor agree upon the end in view.

The great conflict as to whether photography is permanently to remain a copying process or whether it is to launch out into the broad domain of invention could not be settled without a spread of such information as is embodied in "Art Principles."

failed. Photography also laid much weight upon the pose, believing that an attitude was all that is necessary for character portrayal. The Art Principles dispell this illusion.

Great reliance has always been placed by photographers on the scenic or the plain screen background. To-day we learn that a consistent background must be created. A screen background is still to be used but it is not to be left as copied, rather is it to be a ground upon which to work.

Probably more interesting to the art aspirant will be a sketch of the processes that make it possible for us now to apply art principles to our portrait work. They are as follows:

"What background screens are practicable."

"What tints can be used on these screens."

"Medium A, to make darks."

"How to cleanse the negative for this process."

"How to make architectural lines."

"How to make artistic lines."

"How to make lines with one sharp and one soft edge."

"How to make impulsive lines."

"How to make dark spots."

"How to make tone, depth."

"Medium B, to make light."

THE STROKE.

Mediums A and B used in combination.

"Treating the film side of the negative.

"The positive.

"How the artistic photographs illustrating the book were made."

With the processes enumerated above, we may expect to undertake photographic work in a manner very different from that to which we have been accustomed.

By dissecting the accompanying four illustrations we get some perspective of our future problems.

Fig. 1 is the literal, so-called "good straight" photograph. It is a good example of our every-day work. We have chosen it as an illustration because it is necessary to impress the fact that art in photography must first deal with the simplest problems.

Art is valuable if we can make our present work a little better. After a while we shall be able to attempt the more refined, the ambitious and the complex.

In Fig. 1 our eye sees everything with



FIG. 1.

equal force, every spot, the background surface, each hair, every detail in feather and ribbon.

For the imagination there is nothing. Everything in the picture halts; nothing impresses us.

The photographer aimed at good photographic lighting and was successful, but the result left him so unsatisfied with the picture that he trimmed away the greater part of the print leaving a congested and oppressive likeness.

Is it not apparent to us all that the facial expression cannot be pleasing if the texture of the flesh is identical with that of the dress, the ribbon, the background? Is it not necessary to produce a more effective lighting than that which is procured through the agency of the skylight alone?

In Fig 2 the face has been treated until a different texture is obtained, the lighting upon it has been increased in strength, the details of accessories have been simplified. All this has made possible a larger space around the head. In other words, by building up a picture, using a plan, we may also attain to more healthful proportions in the composition.



FIG. 2.

In Fig. 2 our imagination is somewhat aroused and our attention is less scatter-

ed. However, there are still quite disturbing factors, we are too conscious of things that should recede, such as the contour of the waist, the hat, the hair. An improvement is noticeable in Fig 3 where these factors are blended with the background, giving to the face an interest concentrated enough to be very effective.



FIG. 3.

The transition from Fig. 1, through Fig. 2 to Fig. 3 is plainly one from "likeness" toward "portraiture."

Chapter VIII on "Stability" in the "Art Principles" fully explains what merits and what defects exist in the lines of the shoulder in Fig. 2. Chapter IX, "The Foil" gives meaning to the lighted background effect at the shoulder in Fig. 3. Chapter VI deals with "The Power and Force of Lines" so evident in Fig. 3, and so completely absent in Fig. 1. Chapter IV on "Beauty through Spot Arrangement," together with Chapter XII on "Tone and Color" helps us to a

fuller grasp of the reasons that make Fig. 3 pictorially higher than Fig. 1.

But Fig. 3 does not exhaust the possibilities for growth in the negative. See how in Fig. 4, our composition treatment has made the picture larger, finer, more impressive. The woman who in Fig. 1 was made to appear so ordinary has been presented by the artist photographer with refinements and pleasing qualities in Fig. 4. Moreover, the caged appearance in Fig. 1, has given way in Fig. 4 to a quality always desirable in a portrait,—the woman lives in that space, there is room all about her.

Although this short analysis does not touch upon all the factors that make Fig. 4 so superior to Fig. 1 it hints at a few of the possibilities that the inventive mind may develop. The photo-plate can be made to yield effects limitless in their variety and the photo-processes are

neither numerous nor complex. When we analyse pictures in this manner our reasoning is identical with that of artists at work.

As a trainer for the mind, as a means for the development of culture, as an aid in the power to “read” pictures as well as to make them, this newly inaugurated photographic-art cannot be over-estimated.

The requirements are simple. We must know how to develop a negative, and the positive, plus a second negative.

What remains is the manipulation of these plates, a matter that becomes easier with each trial.

The experiments are attractive and profitable, and will remove our work from the cold, hard literalism of the past. Let us believe that every creative attempt toward beauty will help in the development of a new art for and of the people.



FIG. 4.

DUPLICATE NEGATIVES

A SIMPLE METHOD OF MULTIPLYING NEGATIVES FOR RAPID PRINTING.

IT very often happens that a large number of prints are required from a single negative, and that they should be executed at a minimum of both time and cost; photographs, for example, of subjects suitable for picture postcards, groups, stereoscopic views, and so forth. In the rapid production of picture postcards, particularly, there lies a veritable gold mine waiting for the hard-working enthusiast. I heard the other day of a beginner, who was fortunate in securing a lucky snapshot, receiving an order from a local stationer of several hundred copies to be made on postcards, and such windfalls as these are becoming quite common, so much so that a knowledge of making and printing duplicate negatives should prove both useful and profitable.

The process is simplicity itself. The first step is the making of a transparency from the original negative. For this there is no occasion to buy special transparency plates, though these are upon the market, for an ordinary slow plate will do quite as well, the only difference between them being in their speed, the transparency plate being, as a rule, of the same type as those used in the making of lantern slides, that is, about one-quarter as fast as an average "ordinary." Whichever kind is used, however, the negative is placed in the printing frame, in the dark room, and an unexposed plate inserted in the same way as a piece of printing paper, film to film. The frame is then closed up, and either put in a drawer or covered from the light in some way, while the gas or lamp is prepared for the exposure. This, of course, depends upon several factors: the density of the negative, the speed of plate used,

the source of light, and the distance at which the frame is held therefrom, and no absolute statement can be made, yet as a point from which to start I would suggest an exposure of three seconds with an average negative and an ordinary slow plate held at twenty-four inches from a gas flame. In any case the precise exposure would probably be determined at the second trial.

Development is then carried out, and a glass positive obtained, this being of the density of a good lantern slide. It is then washed and dried, when it is ready in its turn to be printed from and a second negative produced. Adjusting therefore the printing frame and light as for the production of the positive, and giving about the same exposure, this second plate is developed, this time, of course, as a negative, and though a couple of exposures might be necessary before securing exactly the type of negative required, these are soon made, and everything is ready for the final stage, or the making of a number of duplicates. How many will depend upon the quantity of prints required; if they can be estimated in dozens, probably six duplicate negatives will be enough; if, on the other hand, hundreds are wanted, at least twelve negatives should be made. In any case the exact number of plates required are removed from the box and given exactly equal exposures at exactly the same distance from the light, and being then developed in the same dish, with the same developer, they will be absolutely uniform, in result, if removed therefrom at the same time. Development is therefore best carried out in a large dish, a whole-plate xylonite dish, for example,

will take four quarter-plate negatives, and will require less developing solution than any other kind; if six plates are to be developed they could be divided up between a whole and a half-plate dish; if eight, then two whole-plate dishes would be requisitioned.

Prints may be taken from these negatives when washed and dried, either in separate frames, or on big frames, which would take several at once. The use of a single frame is, of course, familiar but all are probably not aware of the way to print a number of copies in one large sheet. We will suppose then that a whole-plate frame is to be used. This will take four quarter-plate negatives, which are fixed to a cleaned whole-plate negative, glass to glass, by squeezing a drop of seccotine on to their corners, this glass holding four plates being then inserted in a frame and prints made upon a large sheet of paper, which is developed or toned in the piece, and afterwards cut up into its four component parts, four prints then being executed in the time of one. It is easy to see if two or three such frames were exposed together, an immense number of copies could be taken

in a short time, and the initial trouble of making the negatives very quickly paid off.

There is one other advantage in this method, which should be briefly referred to, namely, that it is possible to improve upon the original negative by this process of duplication. Thus a hard negative may be softened, or a flat one improved in contrast, these changes being effected in the exposure. If the original negative for example, is too black and white, the transparency can be made upon a fairly fast plate held close to the light, and given slight over-exposure, the same plan being adopted in the printing of the second and following duplicates; similarly, if the original is inclined to be flat and weak, the transparency can be made upon a very slow plate, say, a special transparency plate, and exposed at an increased distance from the light, and for a longer time, the process being repeated in the making of the negative. Such dodges as these will readily occur to the amateur, who will find duplicate negative making a great economizer of time and money.—*Focus*.

THE REDUCTION OF HARD NEGATIVES

AN eminent photographic technician once gave it as his opinion that the most satisfactory method of reduction advisable for many "pictorial" negatives requiring after treatment was to "bring them into precipitate contact with a hard and unyielding substance." In other words, he regarded the continued existence of many negatives that had been exposed and developed not only unwisely but too well as being undesirable and unnecessary.

While not going so far as to say we entirely agreed with this dictum, there

can be no doubt the strenuous form of physical reduction indicated would be beneficial in many cases, not only to photography generally, but to the individual responsible for the production of the faulty work.

EXCUSES.

There are, however, occasions when it is quite impossible to replace or repeat an incorrectly exposed or badly developed negative; and the means whereby such errors may be rectified, when the original subject cannot be again photographed, are welcome.

Apart from this aspect of the subject, we must confess, in common, probably, with a great number of readers of this journal, to a latent desire to "make the most of" any negative produced otherwise than in that state of technical perfection implied by our expert friend. We feel, therefore, no compunction in putting forward and advocating methods of reduction for the betterment of negatives needing this treatment.

Certain methods of intensification were treated of last week, and although little that is new can be said on the subject, we have in the fact that most amateurs are at this time of year overhauling their season's negatives with a view to print production, a sufficient excuse for renewed attention being drawn to so useful a phase of work.

TYPES.

When dealing with intensification of negatives we pointed out three of the principal conditions that called for intensification as a remedy.

These were briefly: Correct exposure—under-development, under-exposure—under-development, and over-exposure—under-development.

In each of these cases a method of intensification was advocated to suit the circumstances. There now remain three other classes of negatives that call for corrective treatment, and which are conveniently dealt with by methods of reduction. They are: Under-exposure—over-development; correct exposure—over-development; and the type that needs reduction and occasionally a subsequent intensification: over-exposure—over-development.

The type of negative that usually causes the greatest amount of indecision regarding its correct treatment, and beginners may well be pardoned for not knowing exactly what course to pursue, is one that has been under-exposed but over-developed.

A HARD NUT TO CRACK.

This type of negative is easily distinguished by its extreme harshness; great density on the high lights, and yet very thin in the shadows, clear glass in fact in bad cases.

Here it appears that considerable intensification is necessary for the shadow details, while reduction is obviously required for the high lights.

To intensify the negative by any of the ordinary methods would be but to increase the contrasts and render the image harder still. To reduce would have the effect of clearing out what little detail already existed in the shadows without materially affecting the density of the high-lights.

Persulphate of ammonia, with its selective quality of attacking the high-lights before the shadows, will not sufficiently meet the case, as not the least amount of shadow detail can be spared, and persulphate will undoubtedly attack this portion while reducing the high-lights.

REHALOGENATION.

The only method, therefore, that appears to completely meet the case is that of rehalogenation, which consists in converting the developed and fixed image back into a salt of silver—chloride or bromide—and then redeveloping it. A certain portion of the redeveloped image (the high-lights) can be reduced, while that forming the shadows is intensified. To convert the image into bromide of silver again the following solution should be employed:—

Chromic acid	60 grs.
Potassium bromide	120 grs.
Water	20 ozs.

Sufficient of this should be used to completely cover the negative, which will bleach through completely, as in the preliminary bath for intensification.

When the image is entirely converted, the negative should be well washed, and a non-staining developer applied. Metol-

hydroquinone or glycin is suitable. The following is recommended:—

Glycin	40 grs.
Sodium sulphite	2 drs.
Potassium carbonate	3 drs.
Water	20 ozs.

It is immediately after the application of this developer that a period of extreme watchfulness is necessary, as the negative may be made worse than it was previously. The developer given above acts slowly, so ample time is allowed for observation. The back of the negative (the glass side) must be carefully watched during the process of re-development, and it will be found that the shadow-detail and thin portions of the image blacken through fairly quickly, while the high-lights take a much longer time. As soon, therefore, as the thinner portions are developed right through to the glass, but the high-lights still show white, the negative should be quickly rinsed and placed into the fixing bath (4 ozs. hypo in 20 ozs. water).

In the hypo the portions that have not been blackened by the developer will fix out and leave the re-developed portions only. These consist of all the shadow detail and lighter half-tones which have been slightly intensified, and only those parts of the high-lights upon which the developer has acted. In this manner the thin portions of the image are made stronger and the dense portions are reduced.

The effect on the printing quality of an over-hard negative and the general even-ing-up of the tones is remarkable, and even in extreme cases, if a careful watch is kept on the action of the developer, it is possible to remedy negatives that appear almost hopeless in their excessive contrasts, as it is obvious that the thinner the deposit is in the shadow portions the more quickly will the developer act through to the glass, and the more quickly can the application of the fixing-bath

be made.

Here, however, the resulting image will be very thin all over, and a final intensification will be necessary to bring it up to printing density.

HALATION.

For the cure of bad cases of halation no better procedure can be suggested, especially if the negative is somewhat hard in character.

The developer acts on the bleached image from the surface of the film, and the "halated" portion is that nearest to the glass. When the partly re-developed image is placed in the hypo bath, this portion containing the halation is completely cleared away and a much finer result is obtained than any amount of local reduction by friction with methylated spirit.

This method of physical reduction is nevertheless occasionally useful, and to completely succeed with it care should be taken that the negative is perfectly dry before applying the spirit, that a soft pad is used free from grit—a wad of cotton wool wrapped in a piece of old linen is as good as anything—and that plenty of spirit is used to keep the working surface "lubricated."

CORRECT EXPOSURE—OVER DEVELOPMENT.

The negative that has been correctly exposed but over-developed is also occasionally, when very dense, amenable to this form of treatment; but usually it will be found that even when the density is very considerable, the original gradations of the correctly exposed plate have been retained, each gradation has been equally over-developed, and a reducer is necessary that will bring down the density without unduly affecting the relative gradations of the image.

A very dilute solution, ferricyanide of potash and hypo (Farmer's reducer), is capable of effecting the necessary reduction, but there is always the danger with this reducer of the shadow detail being reduced in excess of the high-

lights. The original formula, as given by Howard Farmer in the "Year-Book of Photography," 1884, is:—Hypo, 1 oz.; water, 20 ozs. Add to this at the time of using a few drops of ferricyanide of potash solution (1 oz. in 20 ozs. of water).

The ideal reducer, however, for the negative that is over-developed only is "Belitski's." The advantages of this are that it keeps indefinitely if protected from light, will not stain, and can be used as

soon as the plate comes from the fixing bath and is discovered to be too dense. The formula for this reducer is:

Potassium ferric oxalate	20 grs.
Sulphate of soda	200 grs.
Water	5 ozs.

Powder, shake till dissolved, and add oxalic acid 75 grains. Shake until the solution turns green, pour into second bottle, leaving excess of oxalic acid in first and add hypo $2\frac{1}{4}$ ozs. and water to make 10 ozs. —*Photo News.*



IN THE CLOISTERS

By S. L. Coulthurst

PICTURES WHICH TELL A STORY

A NOTE BY WARD MUIR.

AMONGST the journalists whose melancholy task it is to cater for the illustrated papers, there is a common saying that "a picture is no good unless it tells a story." The phrase is, of course, the cheapest sort of cant, and means nothing outside Fleet Street, where artistic taste is ruled by the pennies and six-pences of the multitude who patronize bookstalls. Nevertheless there is the germ of reason in this desire for "a story" in every work of art (?), repulsive though the bald statement sounds at first hearing. For every picture, even though it does not by any means tell a story in the pressman's sense, tells a story in some sense or other. The fact that the story is a subtle one, sometimes, does not prove that there is no story at all. At any rate, the subtle picture makes the appreciative critic tell himself a story; tell himself a story of the picture's story; or, maybe, a story of the artist's story.

We photographers, however, secretly cherish a fondness, I am sure, for the picture which tells a story without any particular subtlety, inasmuch as this is the type of subject with which our craft is obviously most suited to deal. And why should we be ashamed of that? I'm sure I don't know. Thomas Moore sang:

"For him there's a story in every breeze,
And picture in every wave,"

and in these two lines epitomised much of the possibilities of story-telling in outdoor photography. Breezes, I fear, we can't quite manage to photograph; but we can photograph the effect of their presence; and "the picture in every wave" is easily caught.

Many a portrait or figure-study, many a hasty travel snapshot, many a quiet landscape, tells a "round unvarnished tale," and tells it uncommonly well too. These things are not great works of temperamental art, perhaps, but they serve their purpose. Furthermore, mark this: they are strong, to a certain degree; strong in a way that meaningless, wishy-washy affected "studies," and so forth—things which have no real intention behind them—can never be. It is no mere mundane catchpenny advice to say, "Have an idea for a story in your mind before you take your picture." Unfortunately, the word "story" has a hackneyed taint. It means too little, to most people. That is why "the picture which tells a story" always raises such a pitying smile on the face of the Superior Person, whenever anyone ventures to mention the atrocity in his presence. He does not realize—as we photographers are beginning to realize—that there is such a thing as "the story always old and always new"; the story told by every beautiful picture, whatever its subject.

—*Amateur Photographer.*



Notes, News and Extracts

PHOTO SECESSION.—The third series of exhibitions held at the Little Galleries of the Photo-Secession will be opened in November, with the Annual Members' Exhibition. Every member is entitled to be represented by one print at least. Prints should preferably not be framed, but mounted on 14 x 22 mounts. All prints intended for this exhibition should be sent *express prepaid* or *by mail* to Photo-Secession, 291 Fifth avenue, New York; or Alfred Stieglitz, care of Geo. F. Of, 3 East 28th street, New York. Send to no other address.

* * * *

ANNOUNCEMENT IS MADE that the American Annual of Photography has been purchased from Styles & Cash, by Tennant & Ward. The 1908 edition, therefore, will be published by them in the autumn of the present year, tho' it will be printed as usual, by Styles & Cash, who have printed this Annual ever since its foundation, in 1886. It will be supplied to the trade by George Murphy, Inc., who were the exclusive wholesale agents last year also.

The Annual will appear, as usual, about the 1st of December. All communications in regard to orders for books, etc., should be addressed to George Murphy, Inc., 57 East 9th Street, and letters in regard to articles and photographs for illustrations should be directed to the Editor of the American Annual of Photography, care of Tennant & Ward, 287 Fourth Ave.

* * * *

"AGFA" RAPID FIXING SALT.—By dissolving this new product in the quantity of water stated in the recipe, an acid fixing bath is obtained, which shows marked advantages. It fixes rapidly and the duration of fixing does not get materially longer with the bath becoming more and more exhausted.

In a fresh bath, the dry plate requires to be thoroughly fixed but one-half the time heretofore necessary. For this reason, the "Agfa" fixing salt will be very much appreciated wherever the fixing has to be done in short time, for instance while travelling; furthermore in summer time, or in tropical climates, where it is important to get the plates as soon

as possible out of the fixing bath. Also for regular studio and reproduction work, the shortening of the duration of fixing will be appreciated, and this the more so, as the bath gets older.

The article is of high interest for fixing continuous roll film bands, and for this reason, the amateur will particularly appreciate the same, as in this way, it will be possible for him to fix his films in a much shorter time.

* * * *

BLACK TONES ON FERRO-PRUSSATE PRINTS.—Blue prints are never so satisfactory after toning as in their original condition, although a change of tone is sometimes desirable in drawing offices. Brownish black tones are said to be obtainable by soaking the dry print in water containing 6 minims of liquid ammonia in each ounce until the colour is bleached; the print must then be rinsed and placed in a tannic acid solution, 9 gr. per oz. Another method of obtaining black tones is by Legrange's process, in which the print is bleached by immersion in a 9 gr. per oz. solution of silver nitrate, and then, after a very thorough washing, fumed with ammonia and exposed to light, the image being then re-developed with ferrous-oxalate.

* * * *

THE NATIONAL ASSOCIATION.—The 27th Annual convention of the P. A. of A. will soon be here, and all members of the craft who are deeply interested in their work will be in Dayton, early August 6th and will not leave until late the 9th.

Dayton is famous as a cleanly and beautiful city, our convention hall is on the banks of a beautiful river and about four squares from the leading hotels and business section.

The hotels are first-class and there will be plenty of accommodation at prices to suit all. We have arranged a program that I trust will be pleasing to all it is as practical I believe as we can arrange for a national gathering. There will be one Art Lecture by Prof. Otto W. Beck of Pratt Institute, subject, "How to make a portrait out of a likeness,"

it will be illustrated with enlargements and drawings.

Mr. Beck is the well known author of a book for the Art Student in Photography.

There will be a lecture by a prominent Chicago photographer on "The business end of the operating room."

A lecture by a successful photographer on "The limit of prices."

A lecture by a successful Washington photographer on "System," also a business talk by a prominent stock dealer of Indianapolis on "The Photographer from the view point of the stock man."

There will be plenty of entertainment for the ladies, one evening will be spent at Far Hills where we will have an informal dance.

Now you people that can do things with the camera, we want one or more of the best photographs you ever made. There will be twenty-five of the best pictures selected to hang as a Salon Exhibit, to each of which will be given while at the convention a certificate of merit.

It will be optional whether you exhibit in this class or make it complimentary.

Make your entries to C. L. Lewis, First Vice-President, 1217 Madison avenue, Toledo, Ohio.

Don't wait until you reach Dayton, to pay your membership fee. If a member, send your dues now and save the time of standing in line before the box office, which is always a congested place on the first day. If a member, send \$3.00 membership fee and \$2.00 dues for the current year, to Frank R. Barrows, treasurer, 1873 Dorchester avenue, Boston, Mass.

Application for space in the Manufacturers and Dealers department should be made to Frank W. Medler, Secretary, Spencer, Iowa.

"Now Get Busy," make those prints, and if you have not already decide to go to Dayton, "Do it now," we want your help to make the 27th annual convention the success it is going to be. we want your presence that you may profit by the practical talks by successful men, you can't get the good out of a convention by staying at home and reading the report in the Journals, go if you have to close shop, get next to the bright men of the profession, make their acquaintance, absorb some of the good things they have to tell you, combine with your own ideas, go home and let the people see that your attendance at the convention has been profitable.

Fraternally yours,

C. J. Van Deventer,

P. A. of A. President

DECENNIAL CONVENTION PHOTOGRAPHERS' ASSOCIATION OF NEW ENGLAND.—Mechanics' Building Boston, Aug. 27, 28, 29, 1907.

Greetings to all members of the P. A. of New England and Maritime Provinces, and all devotees of the craft, wherever located:

To make the Decennial Convention a record breaker in attendance and enthusiasm, the executive committee has sent a circular to every photographer in New England whose name is known to them. If you are not a member just get into line and become one. Application blanks explaining necessary proceedings enclosed. If you are a member, send the amount of your dues—\$2.00 if you are an employer; \$1.00 if an employee—and save the tedious wait in line at the treasurer's office, upon arrival at the hall. This money must not be sent loosely in a letter, but secure a post office or express money order, check or registered letter, as no responsibility will be accepted upon loss if otherwise forwarded. The Mechanics Hall has been secured for our accommodations, and is complete for our needs. With splendidly lighted galleries for our photographic display, Paul Revere hall for our business sessions and lectures, very large and well lighted areas for the manufacturers and dealers, parlors and connecting rooms for our members' use. Our manufacturers and dealers by their co-operation have made it possible for us to offer advantages this year unparalleled in our existence. A Special Grand Portrait Class, open to the world, assures us that the pictures will be a great attraction to us all. Then the Portrait, Genre and Landscapes classes for our members will be filled by our good workers, and make an exhibition well worthy of long and careful study, benefiting all who are privileged to examine them.

The New England Conventions have been exceptionally praiseworthy in their Educational features, and rank second only to the National Association in attendance. We want this year to be the banner year in our history. Now, plan to take this convention in as one of the choice vacations, yet a most beneficial one, for the sights, lectures and interchange of thought will be something for you to work upon for the coming year to your advantage. The vicinity of our meeting place is rich in art: Boston Museum of Fine Arts, Public Library, etc., and cars radiate from there to all points of interest in and about the city.

It is a duty you owe yourself, to get away from your everyday existence and mingle with

others of different thoughts and methods, with a probability of making better work for your patrons upon your return home. A good display is expected from the manufacturers and dealers, showing the latest in necessary appliances for the studio.

Please look over the Roster and Constitution and By-Laws and then sign the membership blank, enclosing the dues by registered letter or otherwise (not loose money, however) and forward to the Secretary, receiving your membership receipt in return.

If you are not a member and desire further circulars from time to time, kindly drop a post card, expressing your desire to

Yours fraternally,

Geo. H. Hastings, Sec. P. A. of N. E.
37 Merrimack St., Haverhill, Mass.

* * * *

FOURTH AMERICAN PHOTOGRAPHIC SALON—
At principal American cities, under auspices of American Federation of Photographic Societies, 1907-1908.

Entries may be forwarded to any of the following addresses:

Fayette J. Clute, care Camera Craft, San Francisco, California; Louis Fleckenstein, Faribault, Minnesota; George B. Goodwin, Wisconsin Camera Club, Milwaukee, Wisconsin; R. E. Weeks, Chicago Camera Club, Chicago, Illinois; C. C. Taylor Camera Club, Toledo, Ohio; E. G. Fountain, 203 Chamber of Commerce, Cleveland, Ohio; William H. Zerbe, 345 Spruce street, Richmond Hill, L. I., N. Y.; or direct to the Pen, Pencil and Camera Club, 1120 Wood street, Wilksburg, Pa.

American entries must be framed or glazed. Failure to comply with this condition will prevent pictures from being submitted to the juries.

FOREIGN ENTRIES.

To be sent mounted or unmounted but not framed.

Entries from Great Britain should be sent to arrive by August 15th, 1907, to H. Snowden Ward, 6 Farringdon avenue, London, E. C., England, and should be marked "For American Photographic Salon."

Entries from Italy, to Alfredo Ornano, 21 via Caffaro, Genoa, Italy, to arrive in his hands by August 15th, 1907 and should be marked "For American Photographic Salon."

Entries from Norway, Sweden and Denmark, to Copenhagen (Denmark) Camera

Club, before August 15th, 1907 and should be marked "For American Photographic Salon."

Entries from Australia to A. Hill Griffiths, 66 King street, Sydney, N. S. W. to arrive in his hands by August 1st, 1907, and should be marked "For American Photographic Salon."

Entries from all other countries should be sent direct to The Pen, Pencil and Camera Club, 1120 Wood street, Wilksburg, Pa., U. S. A., marked "For American Photographic Salon, in bond to Pittsburg," and should arrive in Pittsburg Custom House by Sept. 1st, 1907.

Accepted foreign entries will be framed at the expense of the Federation.

CONDITIONS.

1. Entries must be in the hands of the Pen, Pencil and Camera Club, 1120 Wood street, Wilksburg, Pa., U. S. A., by noon of September 15th, 1907.

2. There will be no invited work. All prints will be submitted to the preliminary jury.

3. No work entered for former American Salons will be eligible.

4. Entries must be suitably framed or glazed and the title, with name and address of entrant plainly written on back of each—except in case of foreign contributors.

5. A list of titles must be sent separately by mail, giving name and address of sender, price of each if for sale, and special instructions, if any. This list should be in the hands of the Secretary a few days before the closing of entries.

6. All work, mounting and framing excepted, must be done by entrant. Sign names of collaborators.

7. Pictures will be returned as soon as practicable after the close of the exhibition.

8. Each contributor must pay the expense of transportation to and from the exhibition.

9. A commission of 15 per cent. will be charged upon each sale by the various clubs holding the Salon.

10. A catalogue will be forwarded to each exhibitor.

The Fourth Salon, from present prospects, will surpass all others as nearly one thousand new names have been added to the mailing list.

The Secretary is in position to give prompt attention to all inquiries and communications.

Waldo E. Strayer, Secretary,
1120 Wood street,
Wilksburg, Pa., U. S. A.

Trade Notes

THE AMERICAN ANNUAL OF PHOTOGRAPHY.—Announcement is made, in another column, of the purchase of the American Annual of Photography, from Styles & Cash, by Tennant & Ward, who will publish the 1908 volume, and subsequent issues, and sell it to the trade, through George Murphy, Inc., who will be the exclusive wholesale selling agents.

Those of our readers who are not familiar with the remarkable history of this publication, which has outlived all other American Photographic Annuals, may be interested to know some of the facts concerning it.

The 1908 issue will be the 22d consecutive volume of the American Annual of Photography, it having been founded in 1887 by the late Washington Irving Adams, then the manager of the Photographic Department of the Scovill Manufacturing Company. It was edited for the first few years by C. W. Canfield, who was President of the old Society of Amateur Photographers of New York. Subsequently it was edited by Mr. W. I. Lincoln Adams, Mr. Walter E. Woodbury, and Mr. Spencer Hord.

When the Scovill & Adams company, which had acquired the publication from the Scovill Manufacturing Company, incorporated with E. & H. T. Anthony & Co., forming the Anthony & Scovill Co., the American Annual of Photography combined with Anthony's International Annual, acquiring the good will of the latter publication, though continuing to be published as the American Annual of Photography. In the meantime, Wilson's Photographic Mosaics, the only other Photographic Annual which had been published in America, discontinued, so that the American Annual then became the sole Year Book of Photography published in the United States.

The Annual was purchased from the Anthony & Scovill company by Styles & Cash, who had always printed the publication, when the former company went out of the publishing business, in 1904. Styles & Cash, thereupon, published, as well as printed the Annual, for the years 1905, 1906 and 1907. Tennant & Ward, the well-known publishers of photo-

graphic books and periodicals, purchased the copyright, and took over the ownership of the Annual in May of the current year, and that enterprising firm will publish the popular Year Book, hereafter.

The first edition of the American Annual of Photography, published in the fall of 1886, was for 5,000 copies; a second edition was subsequently demanded of the same amount. The first edition of the 1888 volume was 10,000 copies, and a second edition of 10,000 was required that year, to supply the phenomenal demand for this Year Book. We believe this was the largest sale of a photographic Year Book ever effected in America, namely, a total of 20,000 copies.

The first edition of the 1889 volume was for 15,000, and no subsequent edition was printed that year, because the book appeared too late in the season. As a result, that volume quickly became very scarce, and is much sought after by collectors. As high as \$5.00 has been paid for a single copy of the 1889 volume. Subsequent issues of the Annual have run from 10,000 to 20,000 copies, in accordance with the demand for the book in different years. It has sold to the professional, as well as to the amateur photographer, and space in its advertising pages has always been eagerly sought by merchants and manufacturers of photographic books.

The Photographic Times Publishing Association will continue to supply our readers with the book, if ordered through them.

* * * *

A NEW GRAFLEX CAMERA.—Folmer & Schwing Co., of Rochester, announce a new Graflex, which is called the Press Graflex, and which, as the name implies, is designed for the Press Photographer.

The Press Graflex is made in the 5 x 7 size only, and is of the non-reversible type. It is fitted with two tripod screwplates and may be used on a tripod in either a horizontal or vertical position. The telescope side arms are made long enough to give 15 inches focal capacity, and the Press Focal Plane Shutter

which carries the curtain roller back of the plane allows this camera to accommodate lenses of from 7 to 14 inches equivalent focus, permitting of a wide range of lenses for fine situations, or the use of long focus lenses for the track or field work. The minimum focus of lens which the Press Graflex will take is 7 inches.

The tension roller is operated by a clock spring, which may be speeded to 1/1500th part of a second. Slow instantaneous exposures can be made by setting the curtain aperture index at "O." Time exposures of any duration can also be made.

The focusing hood is large and spacious, giving a full view of the field, with a complete eye shield fitting the contour of the face, permitting the operator to view the image on the focusing screen, right side up, with the greatest of ease. The camera is opened ready for focusing by pressing a small lever placed near the end of the handle, conveniently near the right thumb, when carrying the camera. The cover operating the focus hood is likewise opened automatically, and the construction of the cover is such that the camera may be carried ready for use while it is opened.

The price of the camera without the lens

is \$100.00. A complete descriptive price list will be mailed by the manufacturers on request.

* * * *

THE FOLLOWING LETTER from Mr. C. V. Cooper, manager of the Castilloa Rubber Plantation Co. of Portland, Oregon, speaks for itself.

Portland, Oregon, March 18, 1907.
Hammer Dry Plate Company,
St. Louis, Missouri.

Gentlemen:—Referring to your letter of December 5th in reference to using your plates in tropical Mexico, I beg to say that I returned on March 1st from an extended trip in that section resulted in beautiful negatives of your 5x7 extra fast plates. With the exception of four or five spoiled plates (due to my own carelessness) every exposure I made in that section resulted in beautiful negatives. This is the first time I have had such a result in the many trips I have made in that country. The plates were packed in paraphine paper both before and after exposure, brought home and developed here. This is for your information.

Yours very truly,
C. V. Cooper.

